Amendment to the Claims

1-47. (Cancelled)

48. (Original) A system for restoring a contact surface of a processing pad used in processing microelectronic workpieces, comprising:

a table for supporting the processing pad;

a carrier assembly having a holder positionable over the table; and

an end-effector carried by the holder, the end effector comprising a conditioning surface configured to engage the contact surface of the processing pad, and a plurality of microstructures on the conditioning surface, the microstructures being arranged in a pattern corresponding to a desired pattern of microfeatures on the contact surface of the processing pad, and the microstructures being raised elements projecting from the conditioning surface and/or depressions in the conditioning surface.

49. (Original) The system of claim 48 wherein:

the end-effector comprises a plate having a backside with a joint for connecting the plate to a holder and the conditioning surface defines a front side of the plate; and

the microstructures comprise raised features spaced apart from one another in the pattern.

50. (Original) The system of claim 48, further comprising a heater carried by the end-effector.

51. (Original) The system of claim 48 wherein the end-effector comprises a cylindrical roller and the conditioning surface is cylindrical.

52. (Original) The system of claim 48 wherein the end-effector comprises a conical roller and the conditioning surface is conical.

53. (Original) A system for restoring a contact surface of a processing pad used in processing microelectronic workpieces, comprising:

a table for supporting the processing pad;

a carrier assembly having a holder positionable over the table; and

an end-effector carried by the holder, the end effector comprising a plate having a conditioning surface configured to engage the contact surface of the processing pad and a plurality of microstructures on the conditioning surface, the microstructures being spatially arranged in a pattern corresponding to a desired pattern of microfeatures to be imparted on the contact surface of the processing pad, and the microstructures being raised elements projecting from the conditioning surface and/or depressions in the conditioning surface.

54. (Original) The system of claim 53, further comprising a heater carried by the end-effector.

55. (Original) A system for restoring a contact surface of a processing pad used in processing microelectronic workpieces, comprising:

a table for supporting the processing pad;

a carrier assembly having a holder positionable over the table; and

an end-effector carried by the holder, the end effector comprising a cylindrical conditioning surface configured to engage the contact surface of the processing pad and the end-effector being rotatable about an axis, and the end effector further including a plurality of microstructures on the conditioning surface, the microstructures being spatially arranged in a pattern corresponding to a desired pattern of microfeatures to be imparted on the contact surface of the processing pad, and the microstructures

being raised elements projecting from the conditioning surface and/or depressions in the conditioning surface.

56. (Original) The system of claim 55, further comprising a heater carried by the end-effector.

57. (Original) A system for restoring a contact surface of a processing pad used in processing microelectronic workpieces, comprising:

a table for supporting the processing pad;

a carrier assembly having a holder positionable over the table; and

an end-effector carried by the holder, the end effector comprising a conical conditioning surface configured to engage the contact surface of the processing pad and the end-effector being rotatable about an axis, and the end-effector further having a plurality of microstructures on the conditioning surface, the microstructures being spatially arranged in a pattern corresponding to a desired pattern of microfeatures to be imparted on the contact surface of the processing pad, and the microstructures being raised elements projecting from the conditioning surface and/or depressions in the conditioning surface.

58. (Original) The system of claim 57, further comprising a heater carried by the end-effector.

59. (Original) A system for restoring a contact surface of a processing pad used in processing microelectronic workpieces, comprising:

a table for supporting the processing pad;

a carrier assembly having a holder positionable over the table;

an end-effector carried by the holder, the end effector comprising a conditioning surface configured to engage the contact surface of the processing pad; and

a heat source coupled to the end-effector to provide heat to the conditioning surface.

60. (Original) The system of claim 59, further comprising microstructures on the conditioning surface.

61. (Original) The system of claim 60 wherein the microstructures comprise raised features projecting from the conditioning surface.

62. (Original) The system of claim 60 wherein the microstructures comprise depressions in the conditioning surface.

63. (Original) The system of claim 59 wherein the end-effector comprises a plate.

64. (Original) The system of claim 59 wherein the end-effector comprises a cylindrical roller.

65. (Original) The system of claim 59 wherein the end-effector comprises a conical roller.

66. (Original) The system of claim 59 wherein the holder comprises an arm and the carrier further comprises a rotary drive unit connected to the arm to rotate the arm, and wherein the end-effector is attached to the arm.

67-101. (Cancelled)